VELICHENKOV, B. I.

USSR/Mining Methods
Coal

Apr 48

"Methods of Increasing the Mining of Coal in the Moscow Coalfield," I. A. Babokin, B. I. Velichenkov, F. M. Komissarov, Engineers, 5 pp

"Ugol'" No 4

Discusses long pillar method of working, width of coal face, depth of seam, types of mechanical coal cutters, spacing of hewers, 3-shift and 2-shift systems, and importance of a dry pit.

1/49154

VELICHKA, D.

First quarterly conference of medical workers. Med.sestra 17 no.2: 46 F '58.
(PUBLIC HEALTH) (MIRA 11:3)

VELICHKA, D.M.

Intravenous injections. Fel'd. i akush. 23 no.10:44-46 O '58
(MIRA 11:11)

1. Zaveduyushchiy fel'dsherako-akusherskim punktom (selo Yusheyevo-Krasnoyarskogo kraya).
(INJECTION INTRAVENOUS)

VELICHKA, D.M. (selo Yukseyevo Krasnoyarskogo kraya)

Care of syringes and their needle attachments. Fel'd. i akush. 25 no.2:57-59 F '60. (MIRA 13:5)
(SYRINGES)

VELICHKA, D.M., fel'dsher (selo Yukseyevo Krasnoyarskogo kraya)

Diffusion of popular scientific medical literature in rural areas. Fel'd. i akush. 26 no.6:56-58 Je '61. (MIRA 14:7)
(HEALTH EDUCATION)

VELICHKA, D.M., fel'dsher (selo Yukseyevo Krasnoyarskogo kraya)

More on the technic of intravenous injections. Fel'd. i akush. 24 no.9:57-59 S '59. (MIRA 12:12)

(INJECTIONS, INTRAVENOUS)

VELICHKA, D.M., fel'dsher (selo Yukseyevo Krasnoyarskogo kraya)

Treatment of erysipeloid (swine erysipelas) with a synthomycin. Fel'd. i akush. 26 no. 2:51-52 F '61. (MIRA 14:4)
(CHLOROMYCETIN)

VELICHKA, D.M.

Anesthesia for injections of laked blood. Med.sestra 19 no.8: 36-37 Ag '60. (MIRA 13:7)

1. Zaveduyushchiy fel'dshersko-akusherskim punktom, Krasnoyarskiy kray.

(BLOOD--TRANSFUSION)

VELICHKA, D.M.

Letters to the editor. Med. sestra 18 no.3:47 Mar '59. (MIRA 12:3)
(BOL'SHE MURTIN DISTRICT--POLIOMYELITIS)

VELICHKA, D.M. (Yukseyevo Krasnoyarskogo kraya)

Diagnosis of whooping cough. Fel'd. i akush. 25 no.3:42-43 Mr '60. (MIRA 13:6)

(WHOOPING COUGH)

Velichka, I. I.

99-1-2/10

AUTHOR: Velichka, I.I., Chief of the Main Administration of Melioration at the Council of Ministers of the Lithuanian SSR

TITLE: Melioration Projects in Soviet Lithuania (Meliorativnyye raboty v sovetskoy Litve)

PERIODICAL: Gidrotekhnika i Melioratsiya, 1958, # 1, pp 9 - 12 (USSR)

ABSTRACT: The flat topography and rather high precipitation in the Lithuanian SSR favors the forming of swamps and boggy soil conditions. During the fifth Five-Year Plan (1951-1955) 266,000 hectares of swamps were reclaimed, and 15,700 ha were drained by covered drainage systems. Plans laid down by the Central Committee on December 1, 1955, called for reclamation of 724,000 ha of swamps during the sixth Five-Year Plan. Special attention is being paid to subsurface drainage, as well as mechanization of melioration projects. By the end of 1957, 21 machine-melioration stations were in operation, which had at their disposal more than 200 single scoop and 115 multi-scoop excavators, 23 scrapers, 155 bulldozers, 26 graders and other machines. The number of drainage systems in the Lithuanian SSR total 2,305, serving an

Card 1/2

area of 874,000 ha.

Scientific-research is being conducted by the Lithuanian Institute for Hydraulic Engineering and Melioration. Specialists are trained in the Kaunas Agricultural Academy and the Panevezh Hydromelioration Technical Schools.

There are 5 photographs and 1 table.

ASSOCIATION: Glavnoye upravleniye melioratsii pri Sovete Ministrov Litovskoy SSR (Main Melioration Office at the Lithuanian SSR Council of Ministers)

AVAILABLE: Library of Congress

Card 2/2

MAR'YANOV, B.M.; SICH, A.S.[Sych, A.S.]; YAMPOL'SKIY, B.B.[IAmpol's'kyi, B.B.]; VELICHKA, I.O.[Velychka, I.O.], red.; POVOLOTSKIY, A.I. [Povolots'kyi, A.I.], red.; GAVRILETS', D.V.[Havrylets', D.V.], tekhn. red.

[Great 20 years; visual aid]Pro velyke dvadtsiatyrichchia; naochnyi posibnyk. Kyiv, Derzhpolitvydav URSR, 1962. 62 p. (MIRA 16:2)

(Russia—Economic policy)

YEVLAMPIYEV, R.A., inzh.; KUZNETSOV, M.A.; PANASOV, A.Ye., inzh.; DZYUBENKO, A.U., putevoy obkhodchik-prolazchik, (st. Troitsk, Yuzhno-Ural'skoy dorogi); MICHURIN, D.N., inzh.; NEVZOROV, I.N., putevoy rabochiy (Stavropol', Severo-Kavkazskoy dorogi); TRIGORLOV, G.I.; VELICHKA, Yu.F., normirovshchik (st.Tomsk, Zapadno-Sibirskoy dorogi); BUGAYCHUK, I.S. (st.Kazatin, Yugo-Zapadnoy dorogi); BYCHKO, S.N.; KRASIN, N.A., inzh. (Tashkent); LOKHMOTKIN, G.A.

Letters to the editor. Put' i put.khoz. 6 no.12:39-41 '62. (MIRA 16:1)

1. Glavnyy bukhgalter distantsii puti, st. Ryazhsk, Moskovskoy dorogi (for Kuznetsov). 2. Zamestitel' dorozhnogo revizora po bezopasnosti dvizheniya, Yaroslavl' (for Michurin). 3. Zamestitel' nachal'nika Tomskoy distantsii Zapadno-Sibirskoy dorogi (for Trigorlov). 4. Dorozhnyy master, stantsiya Verkhovtsevo, Pridneprovskoy dorogi (for Bychko). 5. Mostovoy master, stantsiya Sinel'nikovo I, Pridneprovskoy dorogi (for Lokhmotkin).
(Railroads—Track)

VELICHKIN, A.; KOZAK, L., inzh.

District catalogues and standardization of precast reinforced concrete elements for industrial construction. Prom.stroi.i inzh.soor. 4 no.2:50-52 Mr-Ap '62. (MIRA 15:11)

1. Glavnyy inzh. Kiyevskogo gosudarstvennogo instituta po proyektirovaniyu promyshlennogo stroitel'stva (for Velichkin).
(Concrete products--Standards)

VELICHKIN, A.

New designs are a potential for lowering the cost of construction. Prom.stroi.i inzh.soor. 4 no.5:9-14 S-O '62. (MIRA 16:1)

1. Glavnyy inzh. Kiyevskogo gosudarstvennogo instituta po proyektirovaniyu promyshlennogo stroitel'stva.
(Industrial buildings—Design and construction)

S/108/60/015/010/004/008
B012/B060

6.9400

AUTHORS: Velichkin, A. I., Ponomareva, V. D.

TITLE: Experimental Investigation of the Duration of Overshoots of the Noise

PERIODICAL: Radiotekhnika, 1960, Vol. 15, No. 10, pp. 21-26

TEXT: With reference to papers (Refs. 1,3) the authors describe their own results. The experimental arrangement is first illustrated. The block diagram is shown in Fig. 2. The procedure followed in the measurement of the duration of noise overshoots resembled that of work (Ref. 3), and consisted in measuring the amplitudes. The measuring device of the system was worked out in three variants, which are briefly described. The probability density of overshoot duration and the duration of the interval between overshoots at different levels in normal noise and in the Rayleigh noise were determined experimentally. The results given first are those yielded by the investigation of normal noise transmitted through a low-frequency filter and next, the results from the investigation of normal noise transmitted through a band filter (Figs. 3, 4, and 5) are

given. Fig. 6 illustrates the results from the experimental checking of formula (16) from paper (Ref. 2). Figs. 7 and 8 show the results obtained from a study of the Rayleigh noise which was brought about by way of the cascades of the intermediate-frequency amplifier of a shortwave receiver. Results obtained revealed that the methods known at present for the investigation of noise overshoot duration yield satisfactory results only at the high levels and with a short duration of overshoots. In other cases it is expedient to make use of the experimental results. The authors thank V. I. Tikhonov for having formulated the problem. There are 8 figures and 3 references: 2 Soviet.

SUBMITTED: December 14, 1959 (initially)
March 28, 1960 (after revision)

* Radiotekhnika, 1960, Vol. 15, No. 9, pp. 10-20

VELICHKIN, A.I.

Statistical study of the speech process. Elektrosviaz' 15 no.8:3-10 Ag '61. (MIRA 14:7)
(Information theory)

34832

6,2000 (1159)
9,8300

S/106/62/000/003/001/010
A055/A101

AUTHOR: Velichkin, A.I.

TITLE: Interpolation of continuous communications with discrete transmission

PERIODICAL: Elektrosvyaz', no. 3, 1962, 3 - 7

TEXT: This article treats the interpolation of continuous communications transmitted through discrete channels, with amplitude- and time-quantization of the transmitted communication $\xi_j(t)$. Two problems are examined: 1) Determination of the interpolation method ensuring the smallest RMS deviation of the received signal from the transmitted one. 2) Analysis of the dependence of the distortions upon the interval $\Delta = t_i - t_{i-1}$. The following assumptions are made: 1) The transmitted communication represents a stationary and ergodic process with correlation fuction $K(\tau)$ and dispersion σ^2; the average value of the process is equal to zero. 2) Amplitude quantization leaves the signal practically undistorted. 3) Interferences do not distort the discrete transmissions. The interpolation process can be described by the formula:

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Interpolation of continuous.....

$$\eta_j(t) = \sum_i x_{ji} f_i(t) \qquad (1)$$

where $\eta_j(t)$ is the received communication, $x_{ji} = \xi_j(t_i)$, and $f_i(t)$ are the "non-random coordinate functions". The transmission accuracy criterion is:

$$\nu = M\left\{\frac{1}{\Delta}\int_{t_1}^{t_{l+1}} \left[\xi_j(t) - \eta_j(t)\right]^2 dt\right\}. \qquad (2)$$

Substituting (1) in (2) and developing (2), the author finds a set of equations permitting the determination of the optimum coordinate functions, i.e., the coordinate functions at which ν is minimum. A precise solution of this set of equations is possible in the majority of cases. An approximate solution is, practically, always possible. The author examines several particular cases and, especially, the case where the process has an exponential correlation:

$$R(t - t_1) = e^{-\beta|t - t_1|}. \qquad (8)$$

At the end of the article, he reproduces several formulae permitting the estimation of the dependence of the distortions upon the interval Δ or, rather,

Card 2/3

Interpolation of continuous.....

S/106/62/000/003/001/010
A055/A101

upon 84. There are 2 figures and 3 Soviet-bloc references. The Soviet personalities mentioned in the article are: Kotel'nikov, N.A. Zheleznov, AM Yaglom, and N.K. Ignat'yev.

SUBMITTED: July 21, 1961

Card 3/3

S/024/62/000/006/019/020
E140/E135

AUTHORS: Velichkin, A.I., and Grushko, I.I. (Moscow)

TITLE: Optimal irredundant codes

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i avtomatika, no.6, 1962, 171-177

TEXT: The problem considered is the coding of amplitude levels in pulse-code modulation for remote-control systems. The Gray code is an irredundant code constructed according to a given law. Given a certain matrix of a function of the transition probabilities between the quantisation levels to be coded, the problem is to minimise the error in the presence of (assumed) single errors in each code group according to a given probability distribution. It is shown that in general the Gray code is not the optimal for this problem, under the assumption of single errors in the code groups. A matricial method is given for obtaining such optimal codes.

SUBMITTED: February 21, 1962

Card 1/1

37531
S/046/62/008/002/002/016
B104/B102

24.1300

AUTHOR: Velichkin, A. I.

TITLE: Amplitude clipping of speech

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 2, 1962, 168 - 174

TEXT: The spectral density of attenuated speech is studied. Both forms of speech, the vocal and the non-vocal form have normal density distributions and different dispersions. The mean durance of both forms of sound is 120 μsec; the correlation time is less than 10 μsec. The two-dimensional distribution can, therefore, be represented as the sum of two functions of two-dimensional laws:

$$w_2(\xi_1, \xi_2, \tau) = p_r \cdot w_{2r}(\xi_1, \xi_2, \tau) + p_c \cdot w_{2c}(\xi_1, \xi_2, \tau), \quad (3)$$

where

$$w_{2r}(\xi_1, \xi_2, \tau) = \frac{1}{2\pi \cdot \sigma_{\xi r}\sqrt{1 - R^2_{\xi r}(\tau)}} \exp\left\{-\frac{\xi_1^2 - 2 \cdot R_{\xi r}(\tau)\,\xi_1\xi_2 + \xi_2^2}{2 \cdot \sigma^2_{\xi r} \cdot [1 - R_{\xi r}(\tau)]}\right\}, \quad (4)$$

$$w_{2c}(\xi_1, \xi_2, \tau) = \frac{1}{2\pi \cdot \sigma_{\xi c}\sqrt{1 - R^2_{\xi c}(\tau)}} \exp\left\{-\frac{\xi_1^2 - 2R_{\xi c}(\tau)\,\xi_1 \cdot \xi_2 + \xi_2^2}{2 \cdot \sigma^2_{\xi c} \cdot [1 - R_{\xi c}(\tau)]}\right\}. \quad (5).$$

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Amplitude clipping of speech

$w_2(\xi_1, \xi_2,)$ is the two-dimensional distribution of the probability density; $\xi(t)$ describes speech which is regarded as a steady random process; $R_{\xi\Gamma}$ and $R_{\xi c}$ are the correlation coefficients of vocal and non-vocal sound. The correlation function and spectral density of a steady random process are unambiguously coupled by Khinchin - Wiener transformations. With the aid of these transformations the correlation function can be obtained from spectral densities of speech determined experimentally:

$$K_\xi(\tau) = \sigma_\xi^2 \cdot R_\xi(\tau) = p_\Gamma \cdot \sigma_{\xi\Gamma}^2 \cdot R_{\xi\Gamma}(\tau) + p_c \cdot \sigma_{\xi c}^2 \cdot R_{\xi c}(\tau). \quad (10),$$

where

$$R_\xi(\tau) = \frac{K_\xi(\tau)}{\sigma_\xi^2} = e^{-\alpha|\tau|} \cdot \cos \omega_0 \tau. \quad (9)$$

is the correlation coefficient of speech. σ_ξ^2 is the dispersion.. The subscripts Γ and c refer to vocal and non-vocal sound. For the spectral density of low speech

Card 2/4

$$S_{nr}(\omega) = \sigma_{nr}^2 \cdot \sum_{n=1}^{\infty} a_n \pi \frac{1}{2^{n-2}} \sum_{k=0}^{\frac{n-1}{2}} c_n^k \int_0^{\infty} e^{-n\cdot\rho\cdot\tau} \cos(n-2k)\,\omega_0\tau \cdot \cos\omega\tau \cdot d\tau = \\ = \sigma_{nr}^2 \cdot \sum_{n=1}^{\infty} a_n \cdot A_n(\omega), \quad (19)$$

where

$$A_n(\omega) = \frac{n\cdot\rho}{\pi\cdot 2^{n-1}} \sum_{k=0}^{\frac{n-1}{2}} c_n^k \left\{ \frac{1}{n^2\rho^2 + [(n-2k)\,\omega_0 - \omega]^2} + \frac{1}{n^2\rho^2 + [(n-2k)\,\omega_0 + \omega]^2} \right\}. \quad (20)$$

is finally obtained. For speech attenuated to the threshold of audibility $\sigma_{\eta\Gamma}^2 = \sigma_{\gamma_i c}^2 = \sigma_{\eta}^2$ holds, and the spectral density acquires the form

$$S_n(\omega) = \frac{4}{\pi^2} \cdot \sigma_n^2 \cdot \int_0^{\infty} \arcsin(e^{-\rho\tau} \cdot \cos\omega_0\tau) \cdot \cos\omega\tau \cdot d\tau. \quad (23).$$

The integral (23) was computed with a "Ural - 1" computer. The values given in a table can be used for calculations of the intelligibility of speech. There are 3 figures and 1 table.

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Amplitude clipping of speech

S/046/62/008/002/002/016
B104/B102

ASSOCIATION: Voyenno-vozdushnaya inzhenernaya akademiya im. N. Ye. Zhukovskogo (Air-force Engineering Academy imeni N. Ye. Zhukovskiy) Moscow

SUBMITTED: May 26, 1960

Card 4/4

VELICHKIN, A.I.

Interpolation of continuous communications in the presence of discrete transmission. Elektrosviaz' 16 no.3:3-7 Mr '62. (MIRA 15:4)

(Telecommunication)

S/108/62/017/007/008/008
D288/D308

6.9200
6.9500

AUTHOR: Velichkin, A. I., Member of the Society (see Association)

TITLE: Correlation function and the spectral density of the quantized process

PERIODICAL: Radiotekhnika, v. 17, no. 7, 1962, 70-77

TEXT: The author deals separately with amplitude and time coding and assumes a coder of arbitrary stepped non-linear characteristics, expressed in terms of number of steps, initial level, step intervals, and the delta-function. Formulas are derived for the correlation function and the process dispersion in the above parameters and level probabilities. Their practical meaning is explained, and graphs are constructed for the correlation function and spectral density, with discrete step numbers as parameters, indicating the inverse relationship between correlation time and spectral width. A corresponding analysis of time quantization

Card 1/2

Correlation function and...

follows; it is shown that the spectral density drops to zero at frequencies which are multiples of the quantizing rate, high frequency components falling off with increasing quantizing period. There are 6 figures and 1 table. The English-language references read as follows: W. J. Bennett, BSTJ, v. 27, no. 3, 1948; I. Max, IRE Trans. on information theory, VIT-6, no. 1, 1960.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications im. A. S. Popov) [Abstracter's note: Name of Association taken from first page of journal.]

SUBMITTED: June 16, 1961

Card 2/2

VELICHKIN, A.I.

Correlation function and spectral density of quantized speech.
Akust. zhur. 9 no.1:13-18 '63. (MIRA 16:5)

1. Voyenno-vozdushnaya inzhenernaya akademiya imeni N.Ye.Zhukovskogo, Moskva.

(Speech)

S/108/63/018/002/001/010
D413/D308

AUTHOR: Velichkin, A. I., Member of the Society (see Association)

TITLE: The optimal characteristics of quantizing devices

PERIODICAL: Radiotekhnika, v. 18, no. 2, 1963, 3-9

TEXT: J. Max has given equations for determining the optimal characteristics of a device for quantizing continuous processes, based on the criterion of minimum RMS error, but they require the use of a computer: the author describes a graphical method based on these equations, and quotes parameters obtained by it for quantizing speech. He also considers parameters optimized for maximum information content in the quantized process, which do not coincide with the above, and shows that quantizers with uniform characteristics have optimal properties if preceded by compressors and followed by expanders. Using the maximum-information criterion, the optimal compressor characteristic coincides with the integral distribution law for the process. The optimal expander characteristics

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The optimal characteristics ...

are not the inverse of the compressor characteristics. The noise power required to give equivalent loss of information is a convenient measure of the distortion introduced by quantization. There are 3 figures and 2 tables. The English-language references read as follows: J. Max, Trans. IRE on IT v. IT, III-6, no. 1, 1960; W. R. Bennett, BSTJ, v. 27, no. 3, 1948.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications imeni A. S. Popov) [Abstracter's note: Name of association taken from first page of journal]

SUBMITTED: November 25, 1961

ACCESSION NR: AP4044824 S/0280/64/000/004/0059/0067

AUTHOR: Velichkin, A.I. (Moscow)

TITLE: Mean-square error when quantizing continuous intelligence containing noise

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4, 1964, 59-67

TOPIC TAGS: intelligence quantization, mean-square quantization error, minimal mean-square error, system noise, continuous intelligence

ABSTRACT: The paper discusses the quantization of continuous intelligence corrupted by noise having a minimal mean-square error under the assumption that the process of quantization represents a mixture of intelligence and noise of the information transmitter; it is also assumedthat the intelligence and noise have normal probability densities, are independent, and combine additively. The problem of optimal selection of the quantization thresholds and of the levels ensuring a minimum mean-square error during the quantization of a signal containing noise is solved for the following two cases of practical interest: levels having a nonuniform distribution and levels having a uniform distribution. In the first case, no limitations are imposed on the selection

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ACCESSION NR: AP4044824

of the values of levels and the quantization thresholds which are chosen to satisfy the requirement of minimum mean-square error. In the second case, the values of the levels are chosen such that the intervals between any neighboring levels is the same, and no limitations are imposed on the quantization thresholds. It was shown that the selection of the optimum values of quantization thresholds, levels (in the case of nonuniform distribution) or the interval between levels (in the case of uniform distribution) depends, in the general case, on the intensity of the transmitter noise. When the intelligence and noise are independent and have a normal probability density, the optimal threshold values are only determined by the effective value of the quantized mixture of intelligence and noise. If the levels are distributed uniformly, the optimal threshold values are also distributed uniformly. When quantizing intelligence containing noise, the mean-square error depends on both the quantization and noise intensity. With increasing noise intensity, the error increases and ceases to depend on the number of levels. A smaller mean-square error can be obtained for a nonuniform distribution of levels than for a uniform distribution. However, when the process is characterized by a normal probability density, and the values of thresholds and levels are optimal, then the difference in the mean-square error in the two cases is small and noticeable only when the number of levels is high. Orig. art. has:

Card 2/3

ACCESSION NR: AP4044824

40 formulas, 1 figure and 2 tables.

ASSOCIATION: none

SUBMITTED: 01Jul63 ENCL: 00 SUB CODE: DP

NO REF SOV: 001 OTHER: 001

Card 3/3

ACCESSION NR: AP4026152 S/0108/64/019/003/0066/0075

AUTHOR: Velichkin, A. I. (Active member)

TITLE: Quantization of continuous messages with a minimum mean-square error

SOURCE: Radiotekhnika, v. 19, no. 3, 1964, 66-75

TOPIC TAGS: continuous message quantization, pulse code modulation, pulse code radio transmission, time quantization, level quantization

ABSTRACT: A general theoretical solution of the problem of simultaneous time and level quantization of a continuous message transmitted via a radio channel is offered; the minimum mean-square error is a basis of quantization. The quantizing of information with normal distribution (TV, telemetry) and with Rayleigh distribution (radar signals) is considered. It is found that: (1) in the case of time-level quantization, a two-dimensional distribution of the probability density is required in order to determine the optimum parameters of the quantizer: for longer quantization intervals and channel time lags, the

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ACCESSION NR: AP4026152

optimum levels approach the mean message value, which remains invariable with the optimum quantizations; (2) two quantization equations offered in the article permit finding the optimum parameters of the quantizer; (3) in the case of a normal message, the choice of optimum quantization thresholds is independent of the sampling interval and channel delay; and (4) the mean-square error of quantization increases with increasing quantization interval and becomes independent of the number of levels, and hence with a long sampling interval it is inexpedient to have a large number of quantization levels. Orig. art. has: 1 figure, 29 formulas, and 2 tables.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 13Dec62 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: EC NO REF SOV: 003 OTHER: 001

Card 2/2

L 42797-65 EWT(d)/EWP(n)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) Pc-4/Pq-4/Pf-4/Pg-4/

AUTHOR: Velichkin, A. I. (Moscow)

TITLE: Synthesis and investigation of discrete systems intended for transmitting continuous messages. Part I - Synthesis of optimal systems

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1965, 93-102

ABSTRACT: A synthesizing problem pertaining to both communication and [illegible] system

Card 1/2

L 45[illegible]5
ACCESSION NR: AP5007255

ASSOCIATION: none

SUBMITTED: 05Mar64 ENCL: 00 SUB CODE: DP, EC

NO REF SOV: 004 OTHER: 001

Card 2/2

ABSTRACT: The statistical properties of the optimum discrete system, the synthesis of which was outlined in the first part of this paper, are described. The article proves that [illegible] function, and the spectral density of the message estimate at the output of the system [illegible] obtained taking into account the above-mentioned independence of signals. The

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859310015-8"

AUTHOR: Volchkova, A. I.

[redacted]

Card 1/2

VELICHKIN, A.I.

Decoding of communications in systems with pulse-code modulation.
Radiotekhnika. 20 no.6:76-78 Je '65. (MIRA 18:7)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi imeni Popova.

L 07054-67 EWT(d)/FSS-2

ACC NR: AP6028543 SOURCE CODE: UR/0280/66/000/003/0135/0143

66
B

AUTHOR: Velichkin, A. I. (Moscow)

ORG: none

TITLE: Synthesis of discrete systems for transmitting continuous messages with consideration of the effect of noise in the channel

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 3, 1966, 135-143

TOPIC TAGS: signal transmission, transmission line, signal noise separation, Markov process, information theory

ABSTRACT: In this article the author solves the problem of synthesizing a system for transmitting continuous messages by means of binary signals subjected to the effect of noise which is applicable to communications and automatic control. The criterion of the minimum mean square error is employed. A general solution of the problem of synthesizing systems with and without a return channel is obtained by methods of the statistical theory of estimates. The case of transmitting a normal Markovian message in a system with a return channel is examined in greater detail. Formulas are derived which describe two systems with prediction

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L 07054-67
ACC NR: AP6028543

(with and without a return channel) that are optimal with respect to the criterion of the minimum mean square error. For a further refinement of the structure of this system the probability of a message must be fully predetermined. This refinement was carried out for a normal Markovian message. In this case the approximate method of statistical linearization was employed, the use of which led to synthesis of a system with linear prediction. The direct channel of the synthesized system was not, strictly speaking, discrete. Discrete signals act at its input but continuous realizations of a mixture of the signal with noise acted at the output. The return channel is used for transmitting the values of the estimate and it is continuous. Orig. art. has: 27 formulas and 4 figures.

SUB CODE: 09,17/ SUBM DATE: 04Oct65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 vmb

BEREZOVSKIY, A.P.; VELICHKIN, A.N.; SILKINA, N.I.

Practice of using continuous-action loading and hauling machines in the Dzhezkazgan Mine. Trudy Inst. gor. dela An Kazakh. SSSR 10:64-66 '63. (MIRA 16:8)

(Dzhezkazgan District—Mining machinery)

LOGUNOV, A.N., gornyy inzh.; VELICHKIN, A.N., gornyy inzh.

Using charges with air spaces and igdanite in Kazakhstan enterprises. Vzryv. delo no.54/11:342-349 '64.
(MIRA 17:9)

1. Trest Kazakhvzryvprom.

VELICHKIN, A.N.

Possibility of mining blocks by the underground leaching method. Trudy Inst. gor. dela AN Kazakh.SSR 12:159-163 '63. (MIRA 17:8)

VELICHKIN, A. P.

VELICHKIN, A.P., inzh.

Precast reinforced concrete in industrial construction. Nov.v stroi.tekh. no.11:20-29 '57. (MIRA 10:12)

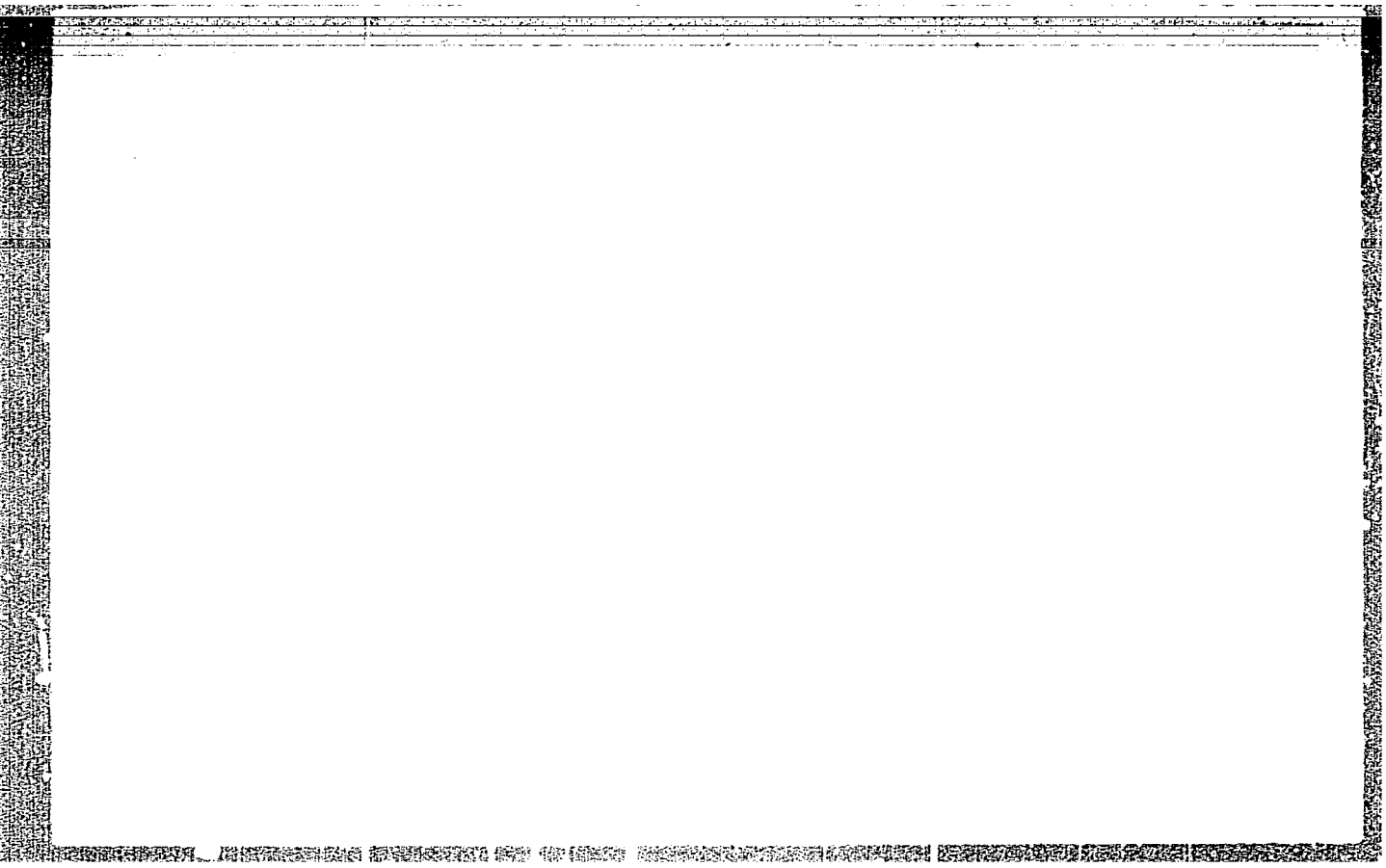
1. Kiyevskoye otdeleniye Promstroyproyekta.
(Ukraine--Industrial buildings) (Precast concrete construction)

VELICHKIN, A.F., inzhener.

Panel-framed building construction in Kiev. Stroi.prom. 32 no.6:2-7 Je '54. (MLRA 7:6)
(Kiev--Apartment houses) (Apartment houses--Kiev) (Building)

TOPIC TAGS: mechanical testing, fatigue testing, aluminum alloy

ABSTRACT: The effect of audio frequency vibrations on aging of aluminum alloys was



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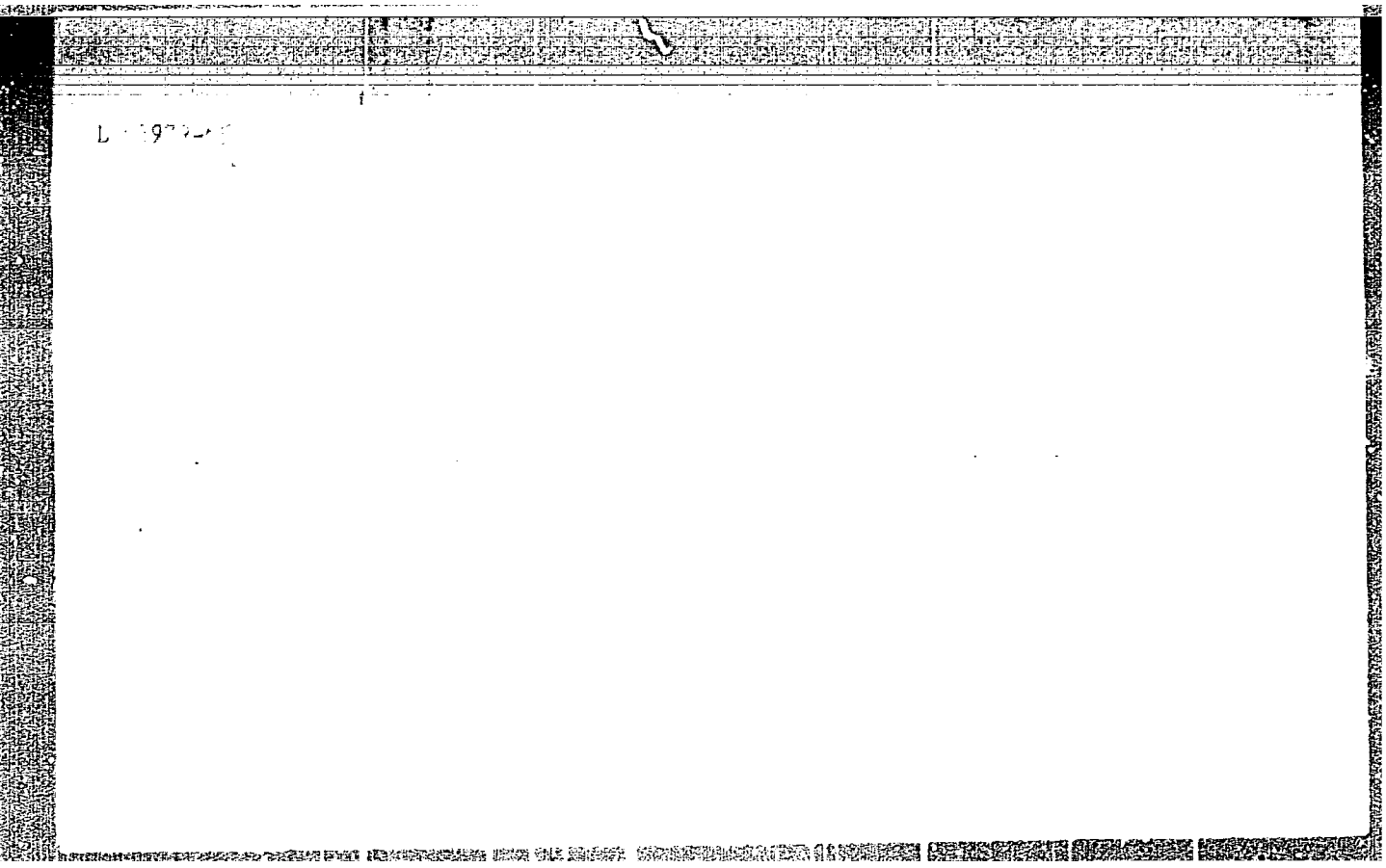

VELICHKIN, G.

Bee Culture - Study and Teaching

Courses for district apiculturists. Pchelovodstvo 29 no. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1953, Unclassified.

BUROV, L., inzh.; ZUBIYETOVA, M., inzh.; VELICHKIN, I., kand.tekhn.nauk; NISNEVICH, A., kand.tekhn.nauk

Steel oil control piston rings. Tekh.v sel'khoz. 21 no.8:80-83 Ag '61. (MIRA 14:7)

(Piston rings)

VELICHKIN, I.

What's new in the Main Administration for Housing and Public Construction in Moscow Province. Stroitel' no. 12:3 D '60. (MIRA 13:12)

1. Ispolnyayushchiy obyazannost' nachal'nika Glavmosoblstroya. (Moscow Province--Construction industry)

VELICHKIN, I.A., doktor vet. nauk.

Experiment in controlling Delafondia, Alfortia, and Strongylus infections in horses kept in herds. Trudy VIGIS 5:173-174 '53.
(Parasites--Horses) (Anthelmintics) (Nematoda) (MIRA 11:1)

S/122/63/000/001/002/012
D263/D308

AUTHOR: Velichkin, I.N., Candidate of Technical Sciences

TITLE: Resistance to wear and useful life of machine parts

PERIODICAL: Vestnik mashinostroyeniya, no. 1, 1963, 15-20

TEXT: The purpose of this study is to analyze nominal and actual wear resistance of machine components and to explain differences between these two qualities. Coefficients $A = \frac{J_n}{J_a}$, $B = \frac{J'_n}{J''_n}$, $V = \frac{J'_n}{J''_a}$, $G = \frac{J_a}{F}$ are introduced (J_n - nominal wear resistance, J_a - actual wear resistance, J' - wear resistance of new machines, J'' - wear resistance of machines after general overhaul, F - actual useful life of machine part). Several typical examples are presented and discussed in detail. Conclusions: differences between nominal and actual wear resistance, between wear resistance of new and overhauled machines, and between nominal resistance of

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part, and their actual useful life are caused mainly by improper working conditions and maintenance and are often due to re-use of partly worn machine components. Coefficients A, B, and G depend on the degree of perfection of their design, quality of production and overhaul and also on exploitation methods. There are 3 figures and 2 tables.

VELICHKIN, I.N., kand. tekhn. nauk

Ways of increasing the reliability and durability of tractor engines. Trakt. i sel'khozmash. no.5:3-6 My '64. (MIRA 17:6)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut.

VELICHKIN, I.N., [illegible]

"GB-58 and GT-58 Gas Generator Tractors" AVTo i Trak Prom No 7, Jul 1951

ARTAMONOV, M.D., kandidat tekhnicheskikh nauk; VELICHKIN, I.N., inzhener; AKOPYAN, S.I., kandidat tekhnicheskikh nauk, redaktor; GOSTEV, B.I., kandidat tekhnicheskikh nauk, redaktor; VASIL'YEV, A.V., kandidat tekhnicheskikh nauk, redaktor; KRISTI, M.K., professor, redaktor; L'VOV, Ye.D., professor, redaktor; MALASHKIN, O.M., inzhener, redaktor; YUDUSHKIN, N.G., inzhener, redaktor.

[Investigation of the G-58 gas engine] Issledovanie gazogeneratornogo dvigatelia G-58. Moskva, Gos.nauchno-tekh.izd-vo mashinostroit.lit-ry, 1954. 26 p. (Moscow.Gosudarstvennyi soiuznyi nauchno-issledovatel'skii traktornyi institut [Trudy], no.11). (MLRA 9:1)

1.Direktor nauchno-issledovatel'skogo avtotraktornogo instituta (for Akopyan). (Gas and oil engines)

VELICHKIN, L. [redacted]

Dependance of the capacity of gas-generator engines from the excess air coefficient. Avt.trakt.prom. no. 12:8-11 D '54. (MLRA 8:2)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Automobiles--Engines (Compressed-gas))

VELICHKIN, I.I., kand. tekhn. nauk; NISNEVICH, A.I., kand. tekhn. nauk; ZUBIYETOVA, M.P., kand. tekhn. nauk; ZHDANOVSKIY, N.S., doktor tekhn. nauk, retsenzent; SAVKIN, I.P., inzh. red.

[Rapid wear tests of diesel engines] Uskorennye ispytaniia dizel'nykh dvigatelei na iznosostoikost'. Moskva, Izd-vo "Mashinostroenie," 1964. 182 p. (MIRA 17:7)

VELICHKIN, I. N.

"Investigation of Certain Peculiarities in the Operating Process of the Gas-Generating Engine G-58." Cand Tech Sci, Moscow Automobile and Road Inst Imeni V. M. Molotov, Min Higher Education USSR, Moscow, 1955. (KL, No 10, Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

VELICHKIN, I.N., inzhener; SKIRIDOV, I.S., inzhener.

How to improve crakcase oil filtering in the D-54 and G-58 engines. Torf.prom.32 no.1:16-17 '55. (MLRA 8:3)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Gas and oil engines--Filters)

VELICHKIN, I.N., kandidat tekhnicheskikh nauk.

Characteristics of the operating cycle of the G-58 gas generator. Vest. mash. 36 no.8:6-11 '56. (MLRA 9:10)

(Gas producers)

VELICHKIN, I.N., kand.tekhn. nauk; AKOPYAN, S.I., kand. tekhn.nauk, otv.red.; GOSTEV, B.I., kand.tekhn.nauk, zam.otv.red; VASIL'YEV, A.V., kand. tekhn.nauk, red.; KRISTI, M.K., prof., red.; L'VOV, Ye.D., prof., red; MALASHKIN, O.M., kand.tekhn.nauk; YUDUSHKIN, N.G., inzh.; UVAROVA, A.F., tekhn.red.

[Some characteristics of the performance of gas-producer engines] Nekotorye osobennosti rabochego protsessa gazogeneratornykh dvigatelei Moskva, Gos. nauchno-tekhn izd-vo mashinostroit. litry, 1958. 37 p. (Moscow. Gosudarstvennyi soiuznyi nauchno-issledovatel'skii traktornyi institut [Trudy], no.16) (MIRA 12:3)
(Gas and oil engines--Testing)

VELICHKIN, I.N., kand.tekhn.nauk

Circulation of abrasive particles in engines. Avt.prom. no.2:17-21 F '59. (MIRA 12:3)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Automobile engineering research)

SOV/113-59-2-9/20

AUTHOR: Velichkin, I.N., Candidate of Technical Sciences

TITLE: The Circulation of Abrasive Particles in Engines (Tsirkulyatsiya abrazivnykh chastits v dvigatelyakh)

PERIODICAL: Avtomobil'naya promyshlennost', 1959, Nr 2, pp 11-21 (USSR)

ABSTRACT: The article deals with the circulation of dust particles which are sucked into the engine and with a method of determining their influence upon the wear of moving parts. Results of tests conducted by NATI with a "D-54" engine are given. In these tests a radioactive iron isotope was mixed with the dust particles fed with air into the engine, so that their circulation could be traced subsequently, and a specific amount of dust was also added to the oil in the crankcase to create real working conditions for the engine under test. The obtained results prove that the method is suitable for the fast testing of all main engine parts for the wear.

ASSOCIATION: NATI

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VELICHKIN, I.N., kand. tekhn. nauk

Wear resistance of D-54 diesel tractor engines. Trakt. i sel'khozmash. no. 6:24-28 Je '58. (MIRA 11:7)
(Diesel engine)

VELICHKIN, I.N., kandidat tekhnicheskikh nauk

Studying the wear resistance of tractor engines. Avt. i trakt.prom. no.3:33-34 Mr '57. (MLRA 10:5)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Tractors--Engines)

VELICHKIN, I.N., kand.tekhn.nauk; ZUBIYETOVA, M.P., mladshiy nauchnyy sotrundik

Accelerated testing of tractor engines for abrasive wear. Trakt. i sel'khozmash. 30 no.9:9-11 S '60. (MIRA 13:9)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Tractors--Engines)

VELICHKIN, O. (Moskva).

Two-channel room antenna. Radio no.8:42 Ag '57. (MLRA 10:8)
(Television--Antennas)

SOV/3836

PHASE I BOOK EXPLOITATION

Velichkin, Oleg Dmitriyevich, Yefim Vol'fovich Lysenko, and Yakov Mikhaylovich Smorodinskiy

Primeneniye poluprovodnikovykh diodov i triodov v ustroystvakh releynoy zashchity i avtomatiki energosistem (Use of Transistor Diodes and Triodes in Relay Protection and in the Automation of Power Systems) Moscow, 1958. 68 p. (Series: Peredovoy opyt proizvodstva. Seriya "Promyshlennaya energetika" : vyp. 11-12) 4,000 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR; Moscow. Dom nauchno-tekhnicheskiy propagandy im. F. E. Dzerzhinskogo.

Ed.: M.I. Tsarev; Tech. Ed.: R.A. Sukhareva; Resp. Reviewer for this Bock: I.A. Manin.

PURPOSE: This booklet is intended for persons interested in relay protection and automation systems.

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SOV/3836

Use of Transistor Diodes (Cont.)

COVERAGE: The booklet examines the practical utilization of transistor diodes and triodes, as well as relay circuits and circuits of automation and protection systems. Ch. I and V were written by Engineers O.D. Velichkin and Ye.V. Lysenko; Ch. II by Ye. V. Lysenko; Ch. III and IV by O.D. Velichkin; and Ch. VI by Ya. M. Smorodinskiy, Candidate of Technical Sciences. There are no references.

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Use of Transistor Diodes (Cont.)

Use of Transistor Diodes (Cont.) SOV/3836

AVAILABLE: Library of Congress

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VELICHKIN, I.N., kand. tekhn. nauk; SMIRNOV, G.A., inzh.; NEZELENOV, Yu.V.

Increasing the operational reliability and the effectiveness of oil purification systems of tractor engines. Trakt. i sel'khozmash. no.7: 6-8 Jl '65. (MIRA 18:7)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut.

VELICHKIN, I.N., kand. tekhn. nauk

Second Scientific Conference on the Increase of Durability and Reliability of Tractor Engines. Trakt. i sel'khozmash. no.10:3 of cover O '64. (MIRA 17:12)

VELICHKIN, I.N., kand.tekhn.nauk

Service life until capital repair, and guaranteed serviceability of tractor engines. Trakt. i sel'khozmash. no.1:3-5 Ja '64. (MIRA 17:4)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut.

VELICHKIN, I.N., kand. tekhn. nauk; ISAYEV, Ye.V.; NISHEVICH, A.I., kand. tekhn. nauk; PUSTOVALOV, I.V.

Effect of various hopping-methods on the wear of piston rings of a tractor diesel engine. Avt. prom. 29 no.4:6-8 Ap '63. (MIRA 16:6)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut.

(Diesel engines--Testing)

VELICHKIN, I.N., kand.tekhn.nauk

Wear resistance and service life of machine parts. Vest. mashinostr. 43 no.1:15-20 Ja '63. (MIRA 16:2)
(Mechanical wear)

VELICHKIN, I.N., kand.tekhn.nauk

Increasing the wear resistance of hopped up engines. Trakt. i sel'khozmash. 31 no.10:12-15 O '61. (MIRA 14:12)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Tractors--Engines)

VELICHKIN, N.I.; ROZHKOV, N.G., red.; TURABAYEV, B., tekhn.red.

[Mineral springs "Ayak Kalkan"] Mineral'nye istochniki "Aiak-Kalkan". Alma-Ata, Kazgosizdat, 1961. 68 p. (MIRA 17:1)

RUBINOVICH, Ya.V.; VELICHKIN, O.D.

Pulsating pneumatic valve. Mash. i neft. obor. no.2:39-43 '63. (MIRA 17:8)

1. Spetsial'noye konstruktorskoye byuro po avtomatike v neftepererabotke i neftekhimii.

VELICHKIN, Oleg Dmitriyevich, inzh.; LYSENKO, Yefim Vol'fovich, inzh.; SMOKODINSKIY, Yakov Mikhaylovich, kand.tekhn.nauk; MANIN, I.A., otv. za vypusk; TSAREV, M.I., red.; SUKHAREVA, R.A., tekhn.red.

[Use of transistor diodes and triodes in relay guarding devices and in the automatic control of power systems] Primenenie poluprovodnikovykh diodov i triodov v ustroistvakh releinoi zashchity i avtomatiki energosistem. Moskva, Ob-vo po rasprostraneniiu polit. i nauchnykh znanii RSFSR. Mosk.dom nauchno-tekhn.propagandy im. F.E.Dzerzhinskogo, 1958. 68 p. (Poredovoi opyt proizvodstva. Ser."Promyshlennaia energetika," nos.11-12) (MIRA 13:2)

(Transistors) (Automatic control)

VELICHKIN, O.D.

VELICHKIN, O.D., inzh.

Conference on semiconductors in relay protection. Elektrichestvo no.12:83-84 D '57. (MIRA 10:12)
(Electric relays) (Semiconductors--Congresses)

VELICHKIN, P. A.

"Control of horse strongylatosis."

report submitted for 1st Intl Cong, Parasitology, Rome, 21-26 Sep 1964.

Agriculture Inst, Moscow.

VELICHKIN, P. A.

Velichkin, P. A. "Enzootic al'fortiotic peritonitis among horses kept in herds", Sbornik rabot po gel'mintologii (Vsesoyuz. in-t gel'mintologii im. akad. Skryabina), Moscow, 1948, p. 73-82.

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949).

VELICHKIN, P. A.

Pukhov, V. I., Velichkin, P. A., and Krivoshta, Ye. Ye. "A study of methods of radical prophylaxis in delafondiosis, al·fortiosis, and trichinonematosis of horses kept in herds", (Report 2), Sbornik rabot po gel'mintologii (Vsesoyuz. in-t gel'mintologii im. akad. Skryabina), Moscow, 1948, p. 185-88.

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949).

VELICHKIN, P.A., V.P. LOGGINOV, V.A.ANTONOV

"Application of Phenothiazine in Strongilidosis and Parascaridosis in Horses under Herd Condition.
SO:Veterinariya, Vol. 25,No4,5-9,1948

NOTE: Vet. referrer lists the following: P.A. Velichkin (Candidate of Veterinary Sciences, Major Veterinary Service), V.P. Loginov (Lt. Col, Vet. Service), and V.A. Antonov (Lt. Col, Vet. Service, Laboratory of the TSUVKH (Central Administration of Military Horse Breeding), Min. of the Armed Forces.

VELICHKIN, P. A., professor; YAKOVLEV, S.A.

Toxicity of phenothiazine in horses. Veterinariia 30 no.8:46-49 Ag '53. (MLRA 6:8)

1. Starshiy veterinarnyy vrach Vetupravleniya Glavzhivupra Ministerstva sel'skogo khozyaystva i zagotovok SSSR (for Yakovlev)

USSR/Farm Animals - Poultry 9

Abs Jour : Ref Zhur- Biol., No 15, 1958, 69424

Author : Velichkin, P.A., Dankov, V.G.
Inst : -
Title : Feeding of Squash to Hens in Order to Control Ascaridosis and Heterakidosis

Orig Pub : Ptitsevodstvo, 1957, No 9, 40

Abstract : No abstract.

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VELICHKIN, P.A., prof.

Evaluating deep unchangeable litter for hens from the point of view of sanitation and helminth control. Ptitsevodstvo 8 no.10: 40-41 O '58. (MIRA 11:10)

1. Vsesoyuznyy sel'skokhozyaystvennyy institut zaochnogo obrazovaniya.

(Litter (Bedding)) (Parasites--Poultry)

VELICHKIN, P.A., prof.

Eradicating Strongylidae and Parascaris from horses on breeding farms. Veterinariia 35 no.8:47-49 Ag '58. (MIRA 11:9)

1. Vsesoyuznyy sel'skokhozyaystvennyy institut zaochnogo obrazovaniya.
(Nematoda) (Horses--Diseases and pests)

VELICHKIN P. A. (Professor) and CHUGUNOV A. S. (Veterinary Surgeon of the First Moscow Stud-Farm)

"Piperazine salts in parascaridosis (equine ascariasis) and strongilatosis (strongyle infestation of horses.)"

Veterinariya, Vol. 38, No 12, December 1961, P. 17.